

**WATTENBERG DISPOSAL, LLC**

WORLD TRADE CENTER  
1675 BROADWAY, 28<sup>TH</sup> FLOOR  
DENVER, COLORADO 80202-4628  
TELEPHONE (303) 825-4822  
FACSIMILE (303) 825-4825  
WWW.KPK.COM

Via USPS Certified Mail-  
Return Receipt Requested

January 9, 2013

Mr. Nathan Wiser  
United States EPA Region 8  
80C-EISC  
1595 Wynkoop Street  
Denver, CO 80202-1129

**RECEIVED**

JAN 15 2013

Office of Legal Enforcement Program  
Region 8 EPA

CO10938-02115

RE: Wattenberg Disposal, LLC  
Quarterly Report for Suckla Farms Injection Well #1  
Semi-Annual Groundwater Monitoring Report

Dear Mr. Wiser,

Enclosed please find the Quarterly Injection Report for the period of October 1, 2012 through December 31, 2012 for the above referenced facility, including water analyses for all three months. Additionally, the Semi-Annual Groundwater Monitoring Report by Apex Consulting Services is attached.

If you have any questions or need additional information, please do not hesitate contacting me at 303-825-4822 or slaramesa@kpk.com

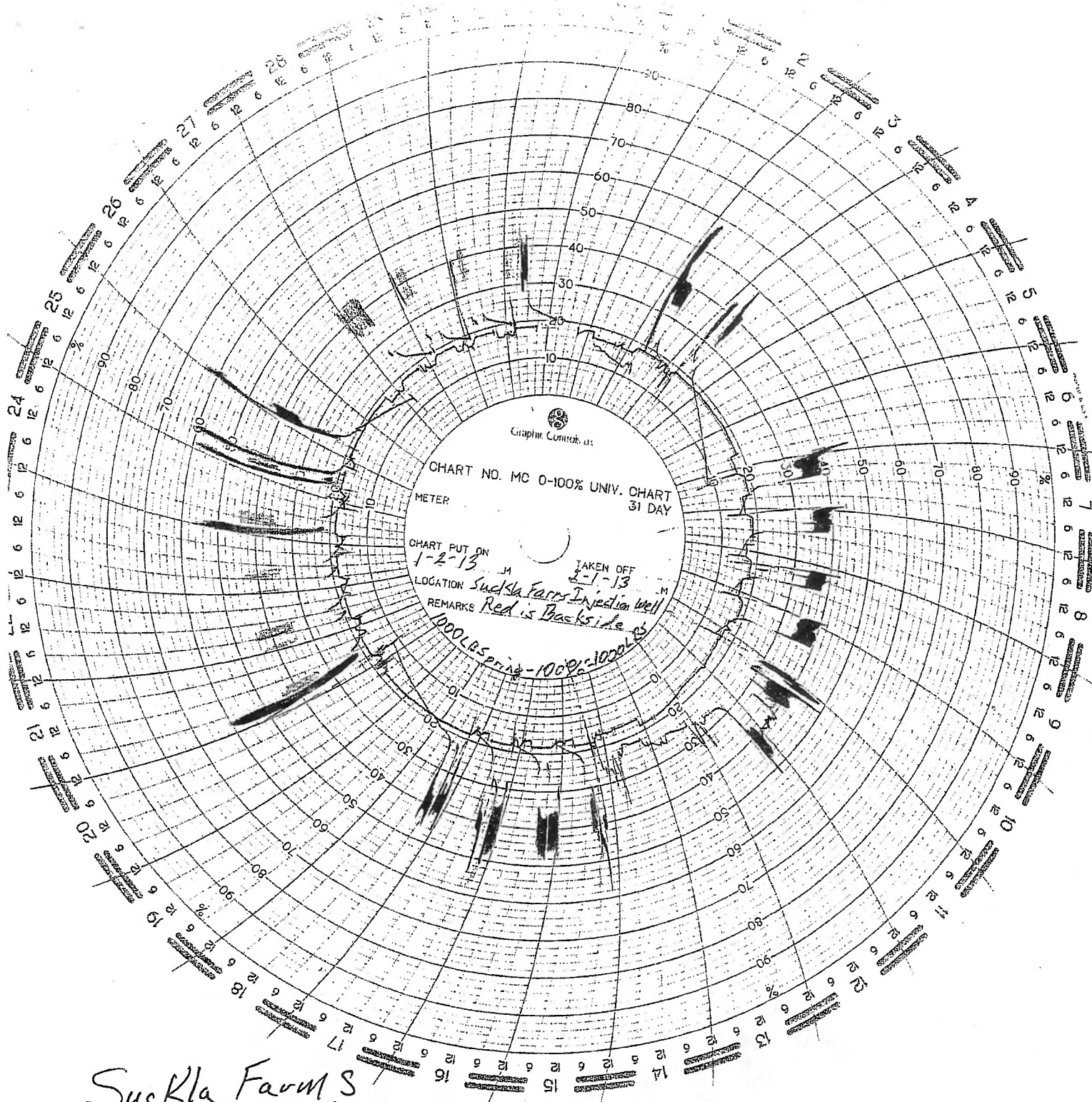
Sincerely,

Susana Lara-Mesa  
Engineering Project Manager

Cc: Caren Johannes, HMWMD  
Troy Swain, Weld County Dept. of Public Health and Environment

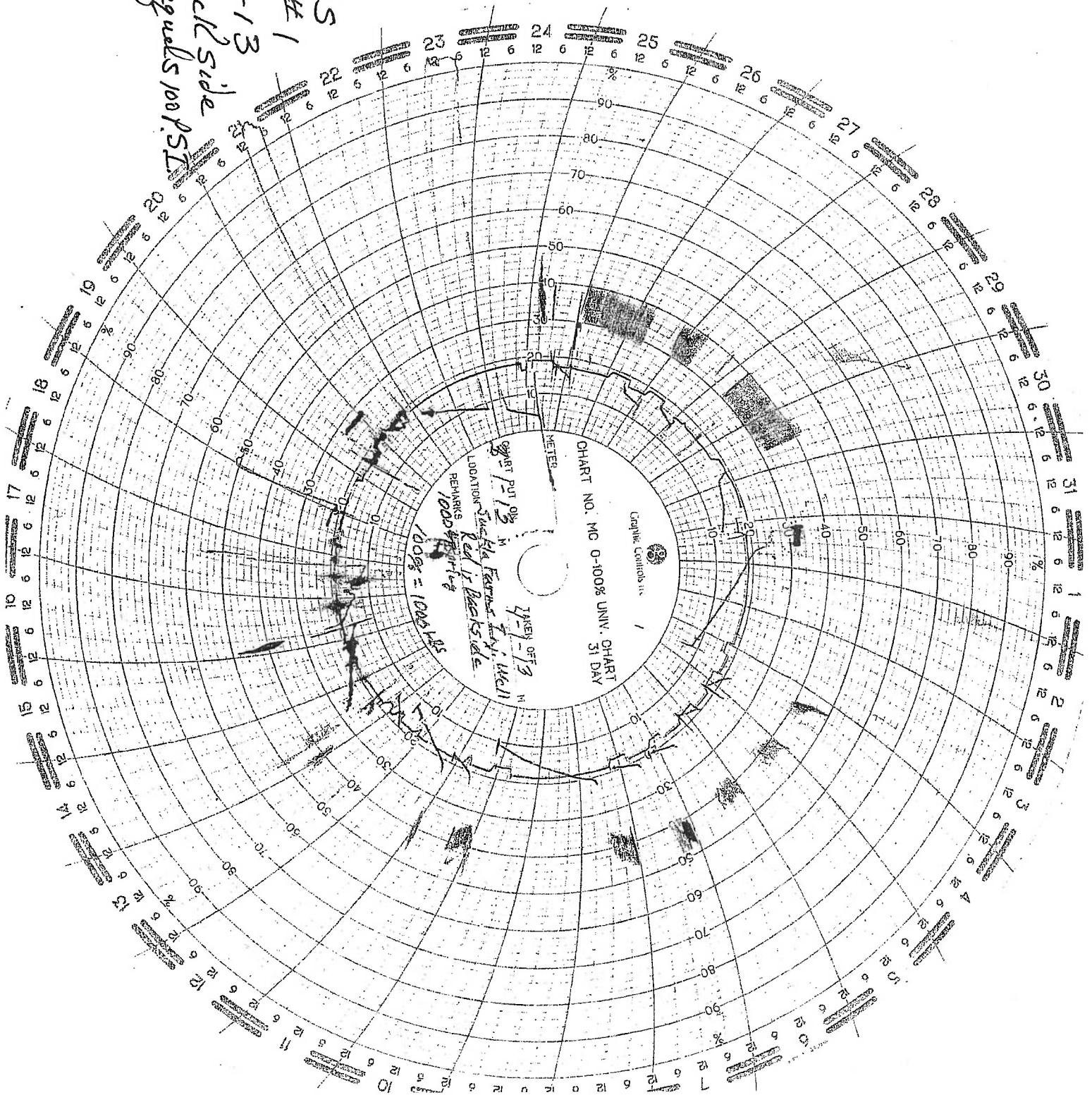
KPK files

U2 Entered	1/15/13
Date	DS
Initial	



Suckla Farm S  
 Injection Well #1  
 1-2-13 to 2-1-13  
 1000 LB Spring- Backside  
 Pressure @ 10% equals 100 P.S.I.

Suckla Farms  
 Injection Well #1  
 3-1-13 to 4-1-13  
 1000 LB Spring-Back Side  
 Pressure @ 10 g equals 100 PSI





01/31/13

## Technical Report for

K.P. Kauffmann Company, Inc.

Wattenberg Tank

Accutest Job Number: D42695

Sampling Date: 01/18/13

### Report to:

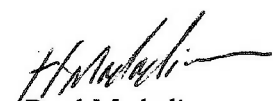
Apex Consulting Services  
PO Box 369  
Louisville, CO 80027-0369  
mhattel@msn.com; slaramesa@kpk.com

ATTN: Mike Hattel

Total number of pages in report: 29



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

  
Brad Madadian  
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW), UT (NELAP CO00049), TX (T104704511-12-1)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Table of Contents

-1-

Sections:

<b>Section 1: Sample Summary .....</b>	<b>3</b>
<b>Section 2: Case Narrative/Conformance Summary .....</b>	<b>4</b>
<b>Section 3: Summary of Hits .....</b>	<b>6</b>
<b>Section 4: Sample Results .....</b>	<b>7</b>
<b>4.1: D42695-1: TANK-I .....</b>	<b>8</b>
<b>4.2: D42695-1F: TANK-I .....</b>	<b>9</b>
<b>Section 5: Misc. Forms .....</b>	<b>10</b>
<b>5.1: Chain of Custody .....</b>	<b>11</b>
<b>Section 6: Metals Analysis - QC Data Summaries .....</b>	<b>13</b>
<b>6.1: Prep QC MP9300: Ca,Mg,K,Na .....</b>	<b>14</b>
<b>Section 7: General Chemistry - QC Data Summaries .....</b>	<b>24</b>
<b>7.1: Method Blank and Spike Results Summary .....</b>	<b>25</b>
<b>7.2: Blank Spike Duplicate Results Summary .....</b>	<b>26</b>
<b>7.3: Duplicate Results Summary .....</b>	<b>27</b>
<b>7.4: Matrix Spike Results Summary .....</b>	<b>28</b>
<b>7.5: Matrix Spike Duplicate Results Summary .....</b>	<b>29</b>







## Sample Summary

K.P. Kauffmann Company, Inc.

Job No: D42695

Wattenberg Tank

Sample Number	Collected		Time By	Matrix			Client Sample ID
	Date			Received	Code	Type	
D42695-1	01/18/13	07:30	MH	01/18/13	AQ	Water	TANK-I
D42695-1F	01/18/13	07:30	MH	01/18/13	AQ	Water Filtered	TANK-I



## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** K.P. Kauffmann Company, Inc.

**Job No** D42695

**Site:** Wattenberg Tank

**Report Date** 1/31/2013 2:08:44 PM

On 01/18/2013, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.5 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D42695 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Metals By Method SW846 6010C

**Matrix** AQ

**Batch ID:** MP9300

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D42742-1FMS, D42742-1FMSD, D42742-1FSDL were used as the QC samples for the metals analysis.
- The serial dilution RPD(s) for Potassium are outside control limits for sample MP9300-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

### Wet Chemistry By Method ASTM D287

**Matrix** ALL

**Batch ID:** GN18576

- The data for ASTM D287 meets quality control requirements.

### Wet Chemistry By Method EPA 1664A

**Matrix** AQ

**Batch ID:** GP9187

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D42728-1MS were used as the QC samples for the HEM Oil and Grease analysis.

### Wet Chemistry By Method EPA 300.0/SW846 9056

**Matrix** AQ

**Batch ID:** GP9136

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D42689-1MS, D42689-1MSD were used as the QC samples for the Chloride, Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate, Chloride analysis.
- D42695-1 for Nitrogen, Nitrate: Elevated detection limit due to matrix interference.
- D42695-1 for Nitrogen, Nitrite: Elevated detection limit due to matrix interference.

**Wet Chemistry By Method SM 2540C-2011****Matrix** AQ**Batch ID:** GN18509

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D42675-1DUP were used as the QC samples for the Solids, Total Dissolved analysis.

**Wet Chemistry By Method SM 5310B-2011****Matrix** AQ**Batch ID:** GP9182

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D42634-1MS, D42634-1MSD, D42867-1DUP were used as the QC samples for the Total Organic Carbon analysis.

**Wet Chemistry By Method SM4500HB+-2011/9040C****Matrix** AQ**Batch ID:** GN18496

- D42695-1 for pH: Analysis performed past the required 15 minutes from collection time/holding time.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.



## Summary of Hits

Page 1 of 1

Job Number: D42695  
Account: K.P. Kauffmann Company, Inc.  
Project: Wattenberg Tank  
Collected: 01/18/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D42695-1	TANK-I					
Chloride		13500	250		mg/l	EPA 300.0/SW846 9056
HEM Oil and Grease		1090	4.8		mg/l	EPA 1664A
Solids, Total Dissolved		21800	10		mg/l	SM 2540C-2011
Specific Gravity by Hydrometer		1.0360				ASTM D287
Sulfate		48.7	25		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon		1040	25		mg/l	SM 5310B-2011
pH <sup>a</sup>		7.01			su	SM4500HB + -2011/9040C
D42695-1F	TANK-I					
Calcium		345000	20000		ug/l	SW846 6010C
Magnesium		46100	10000		ug/l	SW846 6010C
Potassium		269000	50000		ug/l	SW846 6010C
Sodium		8280000	20000		ug/l	SW846 6010C

(a) Analysis performed past the required 15 minutes from collection time/holding time.



## Sample Results

---

## Report of Analysis

---

## Report of Analysis

Client Sample ID: TANK-I  
 Lab Sample ID: D42695-1  
 Matrix: AQ - Water  
 Project: Wattenberg Tank

Date Sampled: 01/18/13  
 Date Received: 01/18/13  
 Percent Solids: n/a

4.1

4

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	13500	250	mg/l	500	01/18/13 14:48	JML	EPA 300.0/SW846 9056
HEM Oil and Grease	1090	4.8	mg/l	1	01/31/13	SWT	EPA 1664A
Nitrogen, Nitrate <sup>a</sup>	< 0.50	0.50	mg/l	50	01/18/13 13:19	JML	EPA 300.0/SW846 9056
Nitrogen, Nitrite <sup>a</sup>	< 2.0	2.0	mg/l	500	01/18/13 14:48	JML	EPA 300.0/SW846 9056
Solids, Total Dissolved	21800	10	mg/l	1	01/22/13	JK	SM 2540C-2011
Specific Gravity by Hydromete	1.0360			1	01/28/13	MM	ASTM D287
Sulfate	48.7	25	mg/l	50	01/18/13 13:19	JML	EPA 300.0/SW846 9056
Total Organic Carbon	1040	25	mg/l	25	01/28/13 12:38	JML	SM 5310B-2011
pH <sup>b</sup>	7.01		su	1	01/18/13 14:30	CT	SM4500HB+ -2011/9040C

(a) Elevated detection limit due to matrix interference.

(b) Analysis performed past the required 15 minutes from collection time/holding time.

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	TANK-I	Date Sampled:	01/18/13
Lab Sample ID:	D42695-1F	Date Received:	01/18/13
Matrix:	AQ - Water Filtered	Percent Solids:	n/a
Project:	Wattenberg Tank		

4.2

4

## Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	345000	20000	ug/l	5	01/24/13	01/24/13 JB	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>
Magnesium	46100	10000	ug/l	5	01/24/13	01/24/13 JB	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>
Potassium	269000	50000	ug/l	5	01/24/13	01/24/13 JB	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>
Sodium	8280000	20000	ug/l	5	01/24/13	01/24/13 JB	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA3207

(2) Prep QC Batch: MP9300

RL = Reporting Limit



## Misc. Forms

---

5

## Custody Documents and Other Forms

---

Includes the following where applicable:

- Chain of Custody







## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D42695

Client: K.P KAUFFMAN COMPANY INC.

Immediate Client Services Action Required: No

Date / Time Received: 1/18/2013 10:00:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: WATTENBERG TANK

Airbill #'s: HD-Co

### Cooler Security

Y or N

1. Custody Seals Present:

☒ ☐

3. COC Present:

☒ ☐

2. Custody Seals Intact:

☒ ☐

4. Smpl Dates/Time OK

☒ ☐

### Cooler Temperature

Y or N

1. Temp criteria achieved:

☒ ☐

2. Cooler temp verification:

Infrared gun

3. Cooler media:

Ice (bag)

### Quality Control Preservation

Y or N

N/A

1. Trip Blank present / cooler:

☐ ☐

2. Trip Blank listed on COC:

☐ ☐

3. Samples preserved properly:

☒ ☐

4. VOCs headspace free:

☐ ☐ ☒

### Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles:

☒ ☐

2. Container labeling complete:

☒ ☐

3. Sample container label / COC agree:

☒ ☐

### Sample Integrity - Condition

Y or N

1. Sample recvd within HT:

☒ ☐

2. All containers accounted for:

☒ ☐

3. Condition of sample:

Intact

### Sample Integrity - Instructions

Y or N N/A

1. Analysis requested is clear:

☒ ☐

2. Bottles received for unspecified tests

☐ ☒

3. Sufficient volume rec'd for analysis:

☒ ☐

4. Compositing instructions clear:

☐ ☐ ☒

5. Filtering instructions clear:

☐ ☐ ☒

Comments

Accutest Laboratories  
V:(303) 425-6021

4036 Youngfield Street  
F: (303) 425-6854

Wheat Ridge, CO  
www.accutest.com

D42695: Chain of Custody  
Page 2 of 2

## Metals Analysis

---

9

## QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: D42695  
Account: KPKCOD - K.P. Kauffmann Company, Inc.  
Project: Wattenberg Tank

QC Batch ID: MP9300  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date: 01/24/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	9.6	25		
Antimony	30	1.7	3.6		
Arsenic	25	4.4	8.4		
Barium	10	.1	1.8		
Beryllium	10	1.3	3.1		
Boron	50	1	4.4		
Cadmium	10	.6	.59		
Calcium	400	5.4	16	3.6	<400
Chromium	10	.3	.56		
Cobalt	5.0	.4	.42		
Copper	10	1.2	3		
Iron	70	1.2	20		
Lead	50	1.9	2.9		
Lithium	2.0	.5			
Magnesium	200	6.5	22	0.30	<200
Manganese	5.0	1.2	1.2		
Molybdenum	10	2.1	2.1		
Nickel	30	.5	.57		
Phosphorus	100	14	59		
Potassium	1000	61	150	78.8	<1000
Selenium	50	4.8	11		
Silicon	50	2.9			
Silver	30	.4	.98		
Sodium	400	5.9	98	3.7	<400
Strontium	5.0	.04	1.5		
Thallium	10	2.9	8.6		
Tin	50	12			
Titanium	10	.1			
Uranium	50	2.2	4.6		
Vanadium	10	.2	.48		
Zinc	30	.5	2.4		

Associated samples MP9300: D42695-1F

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: D42695  
Account: KPKCOD - K.P. Kauffmann Company, Inc.  
Project: Wattenberg Tank

QC Batch ID: MP9300  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.1

6



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D42695  
Account: KPKCOD - K.P. Kauffmann Company, Inc.  
Project: Wattenberg Tank

QC Batch ID: MP9300  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date: 01/24/13

Metal	D42742-1F Original MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	2930	29800	25000	107.5 75-125
Chromium				
Cobalt				
Copper				
Iron	anr			
Lead				
Lithium				
Magnesium	486	25200	25000	98.9 75-125
Manganese	anr			
Molybdenum				
Nickel				
Phosphorus				
Potassium	1240	26500	25000	101.0 75-125
Selenium				
Silicon				
Silver				
Sodium	194000	216000	25000	88.0 75-125
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP9300: D42695-1F

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D42695  
Account: KPKCOD - K.P. Kauffmann Company, Inc.  
Project: Wattenberg Tank

QC Batch ID: MP9300  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

6.1.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D42695  
 Account: KPKCOD - K.P. Kauffmann Company, Inc.  
 Project: Wattenberg Tank

QC Batch ID: MP9300  
 Matrix Type: AQUEOUS

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 01/24/13

Metal	D42742-1F Original MSD		Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium						
Calcium	2930	29500	25000	106.3	1.0	20
Chromium						
Cobalt						
Copper						
Iron	anr					
Lead						
Lithium						
Magnesium	486	24900	25000	97.7	1.2	20
Manganese	anr					
Molybdenum						
Nickel						
Phosphorus						
Potassium	1240	26300	25000	100.2	0.8	20
Selenium						
Silicon						
Silver						
Sodium	194000	213000	25000	76.0	1.4	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP9300: D42695-1F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D42695  
Account: KPKCOD - K.P. Kauffmann Company, Inc.  
Project: Wattenberg Tank

QC Batch ID: MP9300  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

6.1.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D42695  
 Account: KPKCOD - K.P. Kauffmann Company, Inc.  
 Project: Wattenberg Tank

QC Batch ID: MP9300  
 Matrix Type: AQUEOUS

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 01/24/13

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	26700	25000	106.8	80-120
Chromium				
Cobalt				
Copper				
Iron	anr			
Lead				
Lithium				
Magnesium	24800	25000	99.2	80-120
Manganese	anr			
Molybdenum				
Nickel				
Phosphorus				
Potassium	25200	25000	100.8	80-120
Selenium				
Silicon				
Silver				
Sodium	24800	25000	99.2	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP9300: D42695-1F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits

6.13

6



SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D42695  
Account: KPKCOD - K.P. Kauffmann Company, Inc.  
Project: Wattenberg Tank

QC Batch ID: MP9300  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.3

9

SERIAL DILUTION RESULTS SUMMARY

Login Number: D42695  
 Account: KPKCOD - K.P. Kauffmann Company, Inc.  
 Project: Wattenberg Tank

QC Batch ID: MP9300  
 Matrix Type: AQUEOUS

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 01/24/13

D42742-1F		QC	
Metal	Original SDL 1:5	%DIF	Limits

Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium	2930	2970	1.4	0-10
Chromium				
Cobalt				
Copper				
Iron	anr			
Lead				
Lithium				
Magnesium	486	511	5.1	0-10
Manganese	anr			
Molybdenum				
Nickel				
Phosphorus				
Potassium	1240	1600	28.7 (a)	0-10
Selenium				
Silicon				
Silver				
Sodium	194000	201000	3.5	0-10
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP9300: D42695-1F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D42695  
Account: KPKCOD - K.P. Kauffmann Company, Inc.  
Project: Wattenberg Tank

QC Batch ID: MP9300  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested  
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

6.1.4

6

## General Chemistry

---

## QC Data Summaries

7

---

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D42695  
Account: KPKCOD - K.P. Kauffmann Company, Inc.  
Project: Wattenberg Tank

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP9136/GN18497	0.050	0.0	mg/l	20	20.8	104.0	90-110%
Chloride	GP9136/GN18497	0.50	0.25	mg/l	20	20.5	102.5	90-110%
Fluoride	GP9136/GN18497	0.10	0.0	mg/l	10	9.94	99.4	90-110%
HEM Oil and Grease	GP9187/GN18593	5.0	0.0	mg/l	40	37.6	94.0	78-114%
Nitrogen, Nitrate	GP9136/GN18497	0.010	0.0	mg/l	4.52	4.62	102.3	90-110%
Nitrogen, Nitrite	GP9136/GN18497	0.0040	0.0	mg/l	6.09	6.49	106.6	90-110%
Solids, Total Dissolved	GN18509	10	0.0	mg/l	400	397	99.3	90-110%
Sulfate	GP9136/GN18497	0.50	0.0	mg/l	30	31.1	103.7	90-110%
Total Organic Carbon	GP9182/GN18585	1.0	0.0	mg/l	8.82	8.32	94.3	90-110%
pH	GN18496			su	8.00	7.96	99.5	99.3-100.7

Associated Samples:  
Batch GP9136: D42695-1  
Batch GP9182: D42695-1  
Batch GP9187: D42695-1  
Batch GN18496: D42695-1  
Batch GN18509: D42695-1  
(\*) Outside of QC limits

71  
7



BLANK SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D42695  
Account: KPKCOD - K.P. Kauffmann Company, Inc.  
Project: Wattenberg Tank

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP9187/GN18593	mg/l	40	37.2	1.1	20%

Associated Samples:  
Batch GP9187: D42695-1  
(\*) Outside of QC limits

7.2

7

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D42695  
Account: KPKCOD - K.P. Kauffmann Company, Inc.  
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN18509	D42675-1	mg/l	2850	2860	0.4	0-20%
Total Organic Carbon	GP9182/GN18585	D42867-1	mg/l	3.9	3.7	5.3	0-20%

Associated Samples:  
Batch GP9182: D42695-1  
Batch GN18509: D42695-1  
(\*) Outside of QC limits

7.3  
7

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D42695  
Account: KPKCOD - K.P. Kauffmann Company, Inc.  
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP9136/GN18497	D42689-1	mg/l	0.40	2.5	3.0	104.0	80-120%
Chloride	GP9136/GN18497	D42689-1	mg/l	40.4	50	93.3	105.8	80-120%
Fluoride	GP9136/GN18497	D42689-1	mg/l	1.9	2.5	4.4	100.0	80-120%
Fluoride	GP9136/GN18497	D42689-1	mg/l	1.9	2.5	4.4	100.0	80-120%
HEM Oil and Grease	GP9187/GN18593	D42728-1	mg/l	3.0	40	39.2	90.5	78-114%
Nitrogen, Nitrate	GP9136/GN18497	D42689-1	mg/l	0.33	2.83	2.8	87.4	80-120%
Nitrogen, Nitrite	GP9136/GN18497	D42689-1	mg/l	0.0	0.305	0.30	98.5	80-120%
Sulfate	GP9136/GN18497	D42689-1	mg/l	0.0	10	10.1	101.0	80-120%
Total Organic Carbon	GP9182/GN18585	D42634-1	mg/l	3.7	10	14.2	105.0	80-120%

Associated Samples:

Batch GP9136: D42695-1

Batch GP9182: D42695-1

Batch GP9187: D42695-1

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

7.4

7

MATRIX SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D42695  
Account: KPKCOD - K.P. Kauffmann Company, Inc.  
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP9136/GN18497	D42689-1	mg/l	0.40	2.5	3.1	3.3	20%
Chloride	GP9136/GN18497	D42689-1	mg/l	40.4	50	92.8	0.5	20%
Fluoride	GP9136/GN18497	D42689-1	mg/l	1.9	2.5	4.5	2.2	20%
Fluoride	GP9136/GN18497	D42689-1	mg/l	1.9	2.5	4.5	2.2	20%
Nitrogen, Nitrate	GP9136/GN18497	D42689-1	mg/l	0.33	2.83	2.8	0.0	20%
Nitrogen, Nitrite	GP9136/GN18497	D42689-1	mg/l	0.0	0.305	0.31	3.3	20%
Sulfate	GP9136/GN18497	D42689-1	mg/l	0.0	10	10.4	2.9	20%
Total Organic Carbon	GP9182/GN18585	D42634-1	mg/l	3.7	10	14.4	1.4	20%

Associated Samples:

Batch GP9136: D42695-1

Batch GP9182: D42695-1

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

7.5  
7